



Norbert Holtkamp
Accelerator Systems Division
Division Director

PHONE: (865) 241-6945
FAX: (865) 241-6739
Cell Phone: (865) 919 1070
E-MAIL: holtkamp@sns.gov

10/8/2003

Commissioning progress:

Progress on commissioning on DTL1 is hold up by problems with the RFQ operation. The resonance frequency of the RFQ changed last Friday by ~500kHz for no apparent reason and investigation is ongoing. The vacuum system has been opened. The LBNL specialist (John Staples) is on his way to Oak Ridge.

Overview:

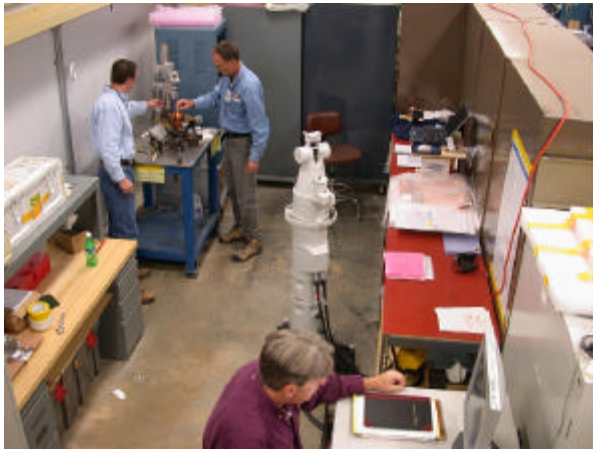
For the DTL the critical path for installation goes through the EMD's that had a leak identified. They are listed here: 1-52V, 1-55H, 1-58V, 2-39V, 2-45V, and 3-23H. A repair procedure was successfully applied this week to all six EMD's and preliminary test show that they are leak tight now. Delivery dates on these EMD's impact directly the final assembly and installation in the tunnel. Dependent on the confirmation of the successful repair the commissioning date for tank 1-3 could slip beyond end of January.

LANL Summary:

Accomplishments - Tank-2: All groups (with the exception of the five units being rebuilt) are machined within 0.020" of final profile. On Tank-5 PMQ and empty drift tubes were final profiled and leak checked. Unit 5-9 was slightly damaged (OD at bottom dented) due to a handling error during leak testing. Based on a verbal description, the physics experts predict this unit will be acceptable; unit was transported to LANL for further inspection. Some units were sent out for stem welding. It is likely we will be shipping completed drift tubes to ORNL next week. On tank 6 all units are at CMI for final profiling; a machine programming error resulted in the scrapping of unit 6-17. The PMQ is being cut out of this unit and a spare dummy unit is being bored out to make a replacement. A contract is in place for qualifying the tank six cap weld at ESCO (Hanford welding operations cease tomorrow); this will be done as soon as possible but will be of lesser priority than finishing the tank two drift tubes. RLWG/iris is at Los Alamos for final leak checking, flow testing and cleaning. For the EMD & BPM DT's four EMD DT's are at Kaehr Plating for stem plating. There are water channel to magnet cavity leaks in six of the EMD units; replacement in the case of 1-55 or weld repair of the other five is the next step to address this problem. The ten BPM drift tubes are either in mapping or final machining. Our biggest concern is with leaking EMD drift tubes. LANL personnel are monitoring all operations including machining, welding, leak checking, and high pot testing operations at CMI, ESCO and Sciaky. The processing of drift tubes and other components at LANL continues to tax remaining DTL recovery team personnel resources.

Oak Ridge Summary:

At Oak Ridge, all 21 PMQ and empty DT's for DTL-4 have been received at ORNL. The 4 EMD and 2 BPM DT's which will bring the total to 27 are expected by mid November. Fiducilization, magnet mapping, and leak testing of the DT's, which is done before installation, is in progress.



DTL-4 Drift Tube Fiducilization in the FE Building



DTL-4 Drift Tubes in the FE Building

The detail schedule of DTL installation activities has been updated consistent with our current installation sequence, where DTL-2 is the next tank installed and DTL-2 and -3 are commissioned together. The schedule indicates that the delivery of the EMD DT's for DTL-1, -2 and -3 are the critical path components. These will likely be the last DT's delivered and they must be installed in DTL-1 and DTL-2 before the DTL-2 tank is placed on the beam line. The DTL-2 tank can be moved on the beam line ~ 5 weeks after the delivery of the last EMD.

Guess
Complete
Negotiating
Contract
Next 7 days
Overdue
Change

Component	Engineer	Tank 3					Tank 1				
		Identifier	Quantity	Shipping Date	Delivered	Change from last week	Identifier	Quantity	Shipping Date	Delivered	Change from last week
EMDs	O'Hara		4	23-Oct-03	0	0		4	5-Nov-03	0	0
BPMs	O'Hara		2	28-Oct-03	0	0					

Component	Engineer	Tank 4					Tank 5				
		Identifier	Quantity	Shipping Date	Delivered	Change from last week	Identifier	Quantity	Shipping Date	Delivered	Change from last week
Drift Tubes	Gentzlinger	4A	7	Complete	7	7	5E	8	22-Oct-03	0	
		4B	6	Complete	6	6	5F	7	22-Oct-03	0	
		4C	6	Complete	6	6	5G	8	22-Oct-03	0	
		4D	8	Complete	8	8					
Dummies	Gentzlinger										
EMDs	O'Hara		4	29-Oct-03	0			4	13-Nov-03	0	
BPMs	O'Hara		2	13-Nov-03	0			2	13-Nov-03	0	
Top hats	Rowton	1.25"	27	3-Oct-03	0		1.25"	23	22-Oct-03	0	
Shrouds	Rowton		27	Complete	27	27		23	22-Oct-03	0	
Endwalls	Turon		2	Complete	2			2	Complete	2	
Post Coupler Kits	Rowton		27	Bead Pull + 15	0			23	Bead Pull + 15	0	
Slug Tuners	Rowton		12	Bead Pull + 7	0			12	Bead Pull + 7	0	
Access Ports	Rowton		2	7-Oct-03	0			2	10-Nov-03	0	
RF Grills	Rowton		4	7-Oct-03	0			4	10-Nov-03	0	
Wave Guide-Iris			1	Complete	1	0		1	Complete	1	0
Window	Young		1	Complete	1	0		1	Complete	1	0
Stands	Turon		1	Complete	1			1	Complete	1	0

Milestones	Date	Date
Ready for RF	?	?
Ready for Beam	28-Feb-04	28-Feb-04
Tank Commissioning complete	1-May-04	1-May-04

Component	Engineer	Tank 6					Tank 2				
		Identifier	Quantity	Shipping Date	Delivered	Change from last week	Identifier	Quantity	Shipping Date	Delivered	Change from last week
Drift Tubes	Gentzlinger	6H	10	28-Oct-03	0		2J	12	11-Nov-03	0	
		6I	11	28-Oct-03	0		2K	12	11-Nov-03	0	
							2L	11	4-Nov-03	0	
							2M	8	4-Nov-03	0	
Dummies	Gentzlinger								None	0	
EMDs	O'Hara		4	13-Nov-03	0			4	23-Oct-03	0	
BPMs	O'Hara		2	19-Nov-03	0			2	28-Oct-03	0	
Top hats	Rowton	1.25"	21	28-Oct-03	0		.75"	41	11-Nov-03	0	
Shrouds	Rowton		21	28-Oct-03	0		1.00"	6	11-Nov-03	0	
Endwalls	Turon		2	Complete	2			47	11-Nov-03	0	
Post Coupler Kits	Rowton		21	Bead Pull + 15	0			2	Complete	2	
Slug Tuners	Rowton		12	Bead Pull + 7	0			27	Bead Pull + 15	0	
Access Ports	Rowton		2	10-Nov-03	0			12	Bead Pull + 7	0	
RF Grills	Rowton		4	10-Nov-03	0			1	7-Oct-03	0	
Wave Guide-Iris			1	25-Sep-03	0	0		4	7-Oct-03	0	
Window	Young		1	15-Oct-03	0			1	17-Sep-03	0	
Stands	Turon		1	Complete	1	0		1	15-Oct-03	1	
								1	Complete	1	

Milestones	Date	Date
Ready for RF	?	?
Ready for Beam	28-Feb-04	30-Jan-04
Tank Commissioning complete	1-May-04	1-May-04